

REMARKS

The Office Action mailed May 10, 2006 has been carefully considered.

Claims 1-4, 6-11, 13-18, 20 and 21 are pending and stand rejected.

Claims 1, 6, 8, 13, 15 and 10 have been amended. Claims 4, 5, 10, 11, 17 and 18 have been cancelled.

Claims 1-4, 8-12 and 15-18 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-5, 8-12 and 15-19 of co-pending USPA no. 10/69,726.

Applicant respectfully disagrees with the reason for rejecting the claims.

However, in the interest of advancing the prosecution of this matter, applicant submits herewith a Terminal Disclaimer limiting the term of that patent that may issue based on the instant application as expressed in the accompanying Terminal Disclaimer document.

Having filed a Terminal Disclaimer in this matter, applicant believes that the reason for the rejection has been overcome and respectfully requests that the Terminal Disclaimer be entered and the rejection be withdrawn.

Claims 8-11, 13-18 and 20-21 stand rejected under 35 USC 101 for allegedly being directed to non-statutory subject matter.

Applicant thanks the Examiner for his suggested language to overcome the rejection (see page 5 of the instant Office Action) and has incorporated in part the suggested language. More specifically, independent claim 8 has been amended to more clearly state the invention in that the computer-executable logic is “provided from a computer-readable medium.” Support for the amendment may be found at least on page 28, line 16-page 29, line 2, which states “[t]he method and apparatus of this invention may take the form, at least partially, of program code ... embodied in tangible media ... When the program code is loaded into and executed by a machine, such as a computer, the machine becomes an apparatus ... The methods and apparatus of the present invention may also be embodied in the form of program code that is transmitted over some transmission medium, such as over electrical wiring or cabling ...”.

Thus the program code is provided from a computer readable medium, whether from the medium or via an electronic transfer. In either case, the program code is a tangible entity and statutory subject matter.

With regard to independent claim 15, applicant would note that the language “provided from a computer-readable medium,” is recited and no amendment to the claim is necessary. However claim 15 has been amended to grammatically offset the existing phrase “provided from a computer-readable medium” to more clearly state the invention.

Claims 4, 11 and 18 stand rejected under 35 USC 112, second paragraph as allegedly being indefinite.

Applicant respectfully disagrees with the reason for rejecting the claims. However in the interest of advancing the prosecution of this matter, the aforementioned claims have been canceled and the subject matter contained therein has been incorporated into the respective independent claim. In incorporating the claim language into the independent claims, the claim language has been amended to be in conformance with that language suggested by the Examiner.

For at least these reasons applicant submits that the reason for the rejection is no longer applicable and respectfully requests that the rejection be withdrawn.

Claims 1-21 stand rejected under 35 USC 102(e) as being anticipated by Young (USP no. 6,898,681), which is the same reference recited in rejecting the claims in the prior Office Action. The instant Office Action further states that “Young teaches point-in-time copies of the master store at different times ... are maintained in shadow store. ...The older point-in-time copies in the shadow store are maintained unless the user selects or allows it to be overwritten. Therefore, Young teaches preservation of data to the shadow store at various point-in-time and master stores can be restored to any specific point-in-time if desired.” (see page 14, instant Office Action). The instant Office Action more specifically refers to col. 1, lines 61-64 and col. 20, lines 4-7 of Young to teach the element of “preserving the data content of the clone,” in that Young allows for a determination of whether to overwrite or protect [not overwrite] the point in time copy.”

Applicant respectfully disagrees with the reason for rejecting the claims for the same reasons argued in response to the rejection of the claims in the prior Office Action. However, in the interest of advancing the prosecution of this matter, the independent claims have been amended to more clearly state the invention. More specifically, the claims have been amended

to recite a clone map used for determining extents to be restored and a protected restore map used to indicate source extents that are changed during the restore step and the restore map being used as the clone map upon completion of the restore step. No new matter has been added. Support for the amendment may be found at least in dependent claims 4 and 5 and on page 15, lines 3-14, which state, in part, “[t]he Protected Restore Map is used to track those extents that are modified due to host write requests during the Protected Restore. Once the Sync Engine completes the reverse-sync, this Protected Restore Map becomes the new Delta Map for the Clone.”

Young, as described in the applicant’s remarks in response to the rejection of the claims in the prior Office Action, discloses a system for providing a copy of data at a point in time that includes a data storage device including a master store arranged to store blocks of data, at least one subsidiary store to store point in time copy data having blocks of data copied from said master store at a particular point in time and a bitmap store associated with each of the subsidiary stores to store data indicating when a data block of the master store differs from a corresponding data block stored in the associated subsidiary store. (see Abstract). Young further teaches files for a shadow store, a shadow copy bitmap and a copy bitmap for storing information regarding changes made to the master store. The shadow copy bitmap and the copy bitmap are used to record events of changes in the master store and when writes occur to the master store during a copy procedure.

It is well recognized that to constitute a rejection pursuant to 35 USC §102, i.e., anticipation, all material elements recited in a claim must be found in one unit of prior art. Young cannot be said to anticipate the present invention, because Young fails to disclose each and every element recited. Young fails to disclose recording data content of the source affected by a host write in a protected restore map used to track extents of the source that are modified during the restoring and preserving steps and setting the protected restore map as the delta clone map after the restoring step is completed.

At least for this reason, applicant submits that the rejection of claim 1 has been overcome and can no longer be sustained. Applicant respectfully requests withdrawal of the rejection and allowance of the claim.

Applicant: David Haase, *et al.*
U.S.S.N.: 10/673,664
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With regard to the remaining independent claims, these claims recite subject matter similar to that recited in claim 1 and were rejected for the same reason used in rejecting claim 1. Thus, for the remarks made in response to the rejection of claim 1, which are also applicable in response to the rejection of the remaining independent claims, and reasserted, as if in full, herein, it is submitted that the reason for rejecting these claims has been overcome and the rejection can no longer be sustained. It is respectfully requested that the rejection be withdrawn and the claims allowed.

With regard the remaining claims, these claims ultimately depend from the independent claims, which have been shown to contain subject matter not disclosed by, and, hence, allowable over, the reference cited. Accordingly, these claims are also allowable by virtue of their dependency from an allowable base claim.

Accordingly, it is respectfully requested that the rejection be withdrawn and the claims allowed.

In view of the foregoing, the applicant believes that the application is in condition for allowance and respectfully request favorable reconsideration.

In the event the Examiner deems personal contact desirable in the disposition of this case, the Examiner is invited to call the undersigned attorney at 914 798 8505.

Please charge all fees occasioned by this submission to Deposit Account No. 05-0889.

Dated: _____

8/10/2004

Respectfully submitted,



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